

AMENDMENTS TO THE CLAIMS

Claims 1-35 (Cancelled)

36. (Currently Amended) A control method for a fuel cell power plant system for a moving body, the system including a drive device which drives the moving body by receiving power, and a power plant having a fuel cell supplying power to the drive device and a fuel supply device which supplies fuel required for the fuel cell to generate power to the fuel cell, the method comprising:

when the moving body has stopped, selecting one operating mode from plural operating modes according to [[the]] a running state of the power plant, the fuel cell not generating power to be supplied to the drive device in the plural operating modes, and
controlling the power plant based on the selected operating mode.

37. (New) The control method as defined in Claim 36, wherein:

the plural operating modes comprise a complete stop mode which completely stops power generation by the power plant.

38. (New) The control method as defined in Claim 36, wherein:

the plural operating modes comprise a heat generation/dissipation balance mode which causes the power plant to generate power so as to maintain a temperature which can maintain an active state of the power plant.

39. (New) The control method as defined in Claim 36, wherein:

the plural operating modes comprise a power generation/consumption balance mode which causes the power plant to generate power according to a power consumption of electronic parts including the controller.

40. (New) The control method as defined in Claim 36, further comprising:

detecting a temperature of the power plant, and
selecting one operating mode from the plural operating modes based on the temperature of the power plant.

41. (New) The control method as defined in Claim 40, further comprising:

detecting a temperature of the fuel supply device as the temperature of the power plant.

42. (New) The control method as defined in Claim 40, further comprising:

when the temperature of the power plant is higher than a predetermined temperature threshold, selecting a complete stop mode which completely stops power generation by the power plant, as the operating mode of the power plant.

43. (New) The control method as defined in Claim 40, further comprising:

when the temperature of the power plant is less than a predetermined temperature threshold, selecting a heat generation/dissipation balance mode which causes the power plant to generate power so as to maintain a temperature at which the power plant can maintain an active state, as the operating mode of the power plant.

44. (New) The control method as defined in Claim 36, further comprising:
counting running time and stopping time of the power plant, and
selecting one operating mode from the plural operating modes based on the running time before the power plant enters a standby state, and the stopping time after the power plant enters the standby state.
45. (New) The control method as defined in Claim 44, further comprising:
tending to select a complete stop mode which completely stops power generation by the power plant as the operating mode of the power plant, the longer is the running time before the power plant enters the standby state, and the shorter is the time after the power plant enters the standby state.
46. (New) The control method as defined in Claim 44, further comprising:
tending to select a heat generation/dissipation balance mode which causes the power plant to generate power so as to maintain a temperature at which the power plant can maintain an active state, as the operating mode of the power plant, the shorter is the running time before the power plant enters the standby state, and the longer is the time after the power plant enters the standby state.
47. (New) The control method as defined in Claim 36, further comprising:
detecting a charge state of a battery, the battery being charged by the power generated by the fuel cell and supplying power to the drive device, and

selecting one operating mode from the plural operating modes based on the charge state of the battery.

48. (New) The control method as defined in Claim 47, further comprising:

selecting a power generation/consumption balance mode which causes the power plant to generate power according to a power consumption of electronic parts including the controller as the operating mode of the power plant, when the charge state of the battery is less than a predetermined charge state threshold.

49. (New) The control method as defined in Claim 40, further comprising:

detecting a charge state of a battery, the battery being charged by the power generation of the fuel cell and supplying power to the drive device, and

selecting one operating mode from the plural operating modes based on the charge state of the battery and the temperature of the power plant.

50. (New) The control method as defined in Claim 49, further comprising:

selecting a power generation/consumption balance mode which causes the power plant to generate power according to a power consumption of electronic parts including the controller as the operating mode of the power plant regardless of the temperature of the power plant, when the charge state of the battery is less than a predetermined charge state threshold,

selecting a heat generation/dissipation balance mode so that a temperature is maintained at which the power plant can maintain an active state as the operating mode of the power plant,

when the charge state of the battery is more than the predetermined charge state threshold, and the temperature of the power plant is less than a predetermined temperature threshold, and

selecting a complete stop mode which causes the power plant to completely stop generating power as the operating mode of the power plant, when the charge state of the battery is more than the predetermined charge state threshold, and the temperature of the power plant is higher than the predetermined temperature threshold.

51. (New) The control method as defined in Claim 36, further comprising:

detecting a charge state of a battery, the battery being charged by the power generation of the fuel cell and supplying power to the drive device,

counting running time and stopping time of the power plant, and

selecting one operating mode from the plural operating modes based on the charge state of the battery, the running time before the power plant enters a standby state and the stopping time after the power plant enters the standby state.

52. (New) The control method as defined in Claim 51, further comprising:

selecting a power generation/consumption balance mode which causes the power plant to generate power according to a power consumption of electronic parts including the controller as the operating mode of the power plant regardless of the running time before the power plant enters the standby state, when the charge state of the battery is less than a predetermined charge state threshold, and

when the charge state of the battery is more than the predetermined charge state threshold, tending to select a complete stop mode which causes the power plant to completely

stop generating power as the operating mode of the power plant, the longer is the running time before the power plant enters the standby state, or the shorter is the stopping time after the power plant enters the standby state, and tending to select a heat generation/dissipation balance mode so that a temperature is maintained at which the power plant can maintain an active state as the operating mode of the power plant, the shorter is the running time before the power plant enters the standby state, or the longer is the stopping time after the power plant enters the standby state.

53. (New) The control method as defined in Claim 36, further comprising:

modifying the threshold value for selecting the operating mode of the power plant according to a running state of the moving body.

54. (New) The control method as defined in Claim 53, further comprising:

detecting a displacement speed of the moving body,
detecting a load of the moving body, and
estimating a weight of the moving body based on the displacement speed and load of the moving body.

55. (New) The control method as defined in Claim 54, further comprising:

modifying the threshold used for selecting the operating mode of the power plant so that there are fewer occasions when a complete stop mode which causes the power plant to stop generating power completely is selected as the operating mode of the power plant, when the estimated weight of the moving body is more than a predetermined weight threshold.

56. (New) The control method as defined in Claim 54, further comprising:

modifying the threshold used for selecting the operating mode of the power plant so that there are fewer occasions when a complete stop mode which causes the power plant to stop generating power completely is selected as the operating mode of the power plant, as the estimated weight of the moving body increases.

57. (New) The control method as defined in Claim 53, further comprising:

detecting a displacement speed of the moving body, and
estimating a type of road on which the moving body is traveling based on the displacement speed of the moving body.

58. (New) The control method as defined in Claim 57, further comprising:

estimating that the moving body is traveling on an expressway when an average value of the displacement speed is high, and

when it is estimated that the moving body is traveling on the expressway, modifying the threshold used for selecting the operating mode of the power plant so that there are fewer occasions when a complete stop mode which causes the power plant to stop generating power completely is selected as the operating mode of the power plant.

59. (New) The control method as defined in Claim 53, further comprising:

detecting a displacement speed of the moving body,
detecting a braking state of the moving body,
detecting a blinker state of the moving body, and

estimating the state when the moving body has stopped based on the displacement speed, braking state and blinker state of the moving body.

60. (New) The control method as defined in Claim 59, further comprising:

modifying the threshold used for selecting the operating mode of the power plant so that there are fewer occasions when a complete stop mode which causes the power plant to stop generating power completely is selected as the operating mode of the power plant, when the displacement speed is zero, braking is performed and a blinker is operating.

61. (New) The control method as defined in Claim 53, further comprising:

detecting a load of the moving body, and
estimating a power of the moving body from the load of the moving body.

62. (New) The control method as defined in Claim 61, further comprising:

statistically analyzing the load of the moving body, and when a cumulative frequency of a predetermined region exceeds a predetermined rate, modifying the threshold used for selecting the operating mode of the power plant so that there are fewer occasions when a complete stop mode which causes the power plant to stop generating power completely is selected as the operating mode of the power plant.

63. (New) The control method as defined in Claim 61, further comprising: statistically

analyzing the load of the moving body, and when a median value of the load exceeds a predetermined value, modifying the threshold used for selecting the operating mode of the power

plant so that there are fewer occasions when a complete stop mode which causes the power plant to stop generating power completely is selected as the operating mode of the power plant.

64. (New) The control method as defined in Claim 61, further comprising:

statistically analyzing the load of the moving body, and when a most frequent value of the load exceeds a predetermined value, modifying the threshold used for selecting the operating mode of the power plant so that there are fewer occasions when a complete stop mode which causes the power plant to stop generating power completely is selected as the operating mode of the power plant.

65. (New) The control method as defined in Claim 61, further comprising:

statistically analyzing the frequency of the load, and when an average value of the load exceeds a predetermined value, modifying the threshold used for selecting the operating mode of the power plant so that there are fewer occasions when a complete stop mode which causes the power plant to stop generating power completely is selected as the operating mode of the power plant.

66. (New) The control method as defined in Claim 53, further comprising:

predicting a time when high power of the power plant will be required from information from a navigation system, the navigation system receiving position information about the moving body, and

when the time until the predicted time is less than a predetermined time, modifying the threshold used for selecting the operating mode of the power plant so that there are fewer

occasions when a complete stop mode which causes the power plant to stop generating power completely is selected as the operating mode of the power plant.

67. (New) The control method as defined in Claim 53, further comprising:

storing the threshold used for selecting the operating mode of the power plant in a rewritable memory.

68. (New) The control method as defined in Claim 67, further comprising:

updating the value stored in the rewritable memory when the threshold used for selecting the operating mode of the power plant is modified, and subsequently selecting the operating mode of the power plant using the updated value.